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10/817,257

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Pawel S. Veselov

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EXAMINER

HILLERY, NATHAN

ART UNIT

PAPER NUMBER

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MAIL DATE

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/817,257

Applicant(s)

VESELOV, PAWEL S.

Examiner

Nathan Hillery

Art Unit

2176

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1, 6, 8, 9 and 22-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 6, 8, 9 and 22-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. This action is responsive to communications: Amendment filed on 7/9/07.
2. Claims 1, 6, 8, 9, and 22 – 24 are currently pending. Claims 1 and 22 are independent claims.

### ***Claim Objections***

3. Claim 6 is objected to because of the following informalities: depends on a cancelled claim. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 6, 8, 9 and 22 – 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ort et al. (JAXB), and in further view of Betts et al. (20050039166).

**Regarding independent claim 1**, Ort et al. teach that you can have JAXB validate the source data against the associated schema. If the data is found to be invalid the JAXB implementation can report it. Some provider implementations might stop processing when the first error is found. The main requirement is that all JAXB implementations must be able to unmarshal valid documents (p 5, first full paragraph), which meet the limitation of **verifying the XML document by running the compiled DTD on the CPU, wherein the compiled DTD receives the XML document as input and generates one of a verified XML output or an error.**

Ort et al. do not explicitly teach **accessing a compiled document type definition (DTD) stored in the memory of the device, wherein the compiled DTD, comprises executable program code configured to execute on the CPU and cause the CPU to receive the XML document as input, the compiled DTD being a self contained executable program that verifies whether the XML document conforms to a DTD that corresponds to the XML document, the compiled DTD being generated by parsing a DTD document to generate source code, the DTD document containing the DTD corresponding to the XML document, and compiling the source code to generate the compiled DTD; downloading an XML document into a wireless device, the wireless device having a central processing unit (CPU), memory, and an I/O interface.**

Ort et al. teach that binding a schema means generating a set of Java classes that represents the schema. All JAXB implementations provide a tool called a binding compiler to bind a schema (p 3, Binding) and Betts et al. teach that one or more schema, may be automatically converted to one or more software data structures, for example Java classes. The resulting merged source file may be compiled (paragraph block 0052) and that a compiler may be used to compile the merged source file resulting in executable compiled merged code (paragraph block 0049), which meet the limitation of **accessing a compiled document type definition (DTD) stored in the memory of the device, wherein the compiled DTD, comprises executable program code configured to execute on the CPU and cause the CPU to receive the XML document as input, the compiled DTD being a self contained executable program**

**that verifies whether the XML document conforms to a DTD that corresponds to the XML document, the compiled DTD being generated by parsing a DTD document to generate source code, the DTD document containing the DTD corresponding to the XML document, and compiling the source code to generate the compiled DTD,** since Ort et al. explicitly teach that the W3C XML Schema Language is not the only schema language. In fact, the XML specification describes document-type definitions (DTDs) as the way to express a schema. In addition, pre-release versions of the JAXB Reference Implementation worked only with DTDs -- that is, not with schemas written in the XML Schema Language. There are tools available to convert DTDs to the W3C XML Schema Language, so if you have DTD-based schemas that you used with an earlier version of the JAXB Reference Implementation, you can use these tools to convert the schemas to XML Schema Language (pp 2 and 3, Why W3C XML Schema Language? Box).

Betts et al. teach that techniques of the present disclosure may be used to validate XML data that may be received (paragraph block 0061) and that the system and method of the present disclosure may be implemented in the form of a software application running on a computer system, for example, a handheld computer (paragraph block 0065 and Fig 6), which meet the limitation of **downloading an XML document into a wireless device, the wireless device having a central processing unit (CPU), memory, and an I/O interface.**

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Ort et al. with those of Betts et al. because such a

combination would provide the users of Ort et al. with a method for merging a shadow software functionality with the automatically converted software data structure to form a merged software (paragraph block 0029).

**Regarding claim 6**, Ort et al. teach that the content objects are instances of the classes produced by the binding compiler. The primary package, javax.xml.bind, contains classes and interfaces for performing operations such as validation (p 3, last paragraph – p4 first paragraph), which meet the limitation of **compiling the source code with a verifier interface to generate the compiled DTD**.

**Regarding claim 8**, Ort et al. teaches that you can have JAXB validate the source data against the associated schema as part of the unmarshalling operation (p 5, first full paragraph) and that a schema identifies the elements that can appear in an XML document, in what order they must appear, what attributes they can have, and which elements are subordinate (that is, are child elements) to other elements (p 2, Bind Schema, second paragraph), which meet the limitation of **executing a verification algorithm against a structure, the verification algorithm being capable of distinguishing an order of elements in a DTD document**.

**Regarding claim 9**, Ort et al. teach that the JAXB specification mandates that all provider implementations report validation errors when the errors are encountered, but the implementation does not have to stop processing the data. Some provider

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implementations might stop processing when the first error is found, others might stop even if many errors are found. The main requirement is that all JAXB implementations must be able to unmarshal valid documents (p 5, first full paragraph), which meet the limitation of **generating one of an error, a verified XML document, and the verified XML document with an inserted attribute.**

**Regarding claims 22 – 24**, the claims incorporate substantially similar subject matter as claims 1, 8 and 9, respectively, and are rejected along the same rationale.

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 1, 6, 8, 9, and 22 – 24 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Doug Hutton whose telephone number is 571-272-4137. The examiner can normally be reached on M-F, 8:00 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon can be reached on 571-272-4136. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Art Unit 2176



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